1/5

GGGGGGGGGGGGTCAGAGGGAGCTTTCTTTTAGGCCCGTCCATCTGTGAAT CTAACCTCAGTTTCTGGGAATCAGGAAGCATGCATCTCCTCTTAGTTCAGCTG CTTGTTCTCTTGCCTCTGGGGAAGGCAGACCTATGTGTGGATGGCTGCCAGAG TCAGGGCTCTTTATCCTTTCCTCTCTCAGAAAGGGGTCGCAGAGATCTCCACG TGGCCAACCACGAGGAGGCAGAAGACAAGCCGGATCTGTTTGTGGCCGTGCCA GCTGTCCAGGCTTGGAAGATTCTGGAAGAAACCTGAGACCGAATTTTACCCCC CAAGGGATGTGGAAAGCGATCATGTCTCATCGGGGATGCAGGCCGTGACTCAG CCAGCAGATGGGAGAAGTGGAGAGATCACCTCTACAGGAGGAAGCCAAGAG GTTCTGGCATCGGTTCATGTTCAGAAAGGGCCCGGCGTTCCAGGGAGTCATCC TGCCCATCAAAAGCCACGAAGTACACTGGGAGACCTGCAGGACTGTGCCCTTC AACCAGACCATTGCCCATGAAGACTGTCAAAAAGTCGTTGTCCAGAACAACCT TTGCTTTGGCAAATGCAGTTCCATTCGTTTTCCCGGAGAAGGGGCAGATGCCC ACAGCTTCTGCTCCCACTGCTCGCCCACCAAATTCACCACCGTGCACTTGATG CTGAACTGCACCAGCCCAACCCCCGTGGTCAAGATGGTGATGCAAGTAGAAGA GTGTCAGTGCATGGTGAAGACGGAACGTGGAGAGGAGCGCCTCCTACTGGCTG ATTACCTCAACAGAAAGCAAAACCTCAACAGAATAAGTGAGGGTTATTCAATC GTTTGTGTTTAGACAGGGTCTTATGTATTCTCAGCTGGCCTCAAACTCACAAT GTGGCTGGGGATGATTTTAAACTCCTGATCCAATTCCTGAGTGCTGGGATTAC AGACATGCTCCATAANACATAGCTCCCAGAAGGATTTTTAAAAGAGATTTTGC ATGTTTCAAAGTTGCCTTTGAGACTCAGAAATATTTTGATNTATTGAATGGCC TTCGTTCAGAATTCTCCACATGAAGTTTTTACTGTTGGTTATCTGGCGTTGAA GAAGGAATAGTGAAGGTACTTTTAACAGTTTACACGTGGAAGGGGCTCAGGCA CTAGGAACCAACCTTTTCCCGGAATATGAGGAAAATACATGAACAGTATTAGA GTCACTTGAGGAAGTTACTAGGAAACGCCATAAGTCTCCAAGTACATTGTGAG TCATTTTGAAGGACAATCGTGTATATAGACGAAATCTTCTACTCGTATGCTTT TGAATCTTC'IAGCAAGTTAGGTTTCTATGTTTGGGCCTTCTTCCTATTGTCTAA GAGTATGTGTGACAAATTCAACCTGACAAATACCTCAATGGCAAATTCTGACC CTG (SEQ ID NO:

MHLLLVQLLVLLPLGKADLCVDGCQSQGSLSFPLLERGRRDLHVANHEEAEDK
PDLFVAVPHLMGTSLAGEGQRQRGKMLSRLGRFWKKPETEFYPPRDVESDHVS
SGMQAVTQPADGRKVERSPLQEEAKRFWHRFMFRKGPAFQGVILPIKSHEVHW
ETCRTVPFNQTIAHEDCQKVVVQNNLCFGKCSSIRFPGEGADAHSFCSHCSPT
KFTTVHLMLNCTSPTPVVKMVMQVEECQCMVKTERGEERLLLAGSQGSFIPGL
PASKTNP (SEQ ID NO: 20)

215

Construct

Gene:

67

GI Number(s): 6753409

Gene Family:

Growth Factor Inhibitor

Gene

Cerberus

Subfamily:

Gene Sequence: full-length cDNA, Mouse

underlined = deleted in targeting construct

[] = sequence flanking Neo insert in targeting construct

 $\verb|[GGGGGGGGGGGGGTCAGAGGGAGCTTTCTTTTAGGCCCGTCCATCTGTGAATCTAACC||$ TCAGTTTCTGGGAATCAGGAAGCATGCATCTCCTCTTAGTTCAGCTGCTTGTTCTCTTGC CTCTGGGGAAGGCAGACCTATGTGTGGATGGCTGCCAGAGTCAGGGCTCTTTATCCTTTC CCTCCTAGAAAGGGGTCGCAGAGATCTCCACGTGGCCAACCACGAGGAGGCAGAAGACAA AGAGGCAGAGAGGGAAGATGCTGTCCAGGCTTGGAAGATTCTGGAAGAAACCTGAGACCG AATTTTACCCCCCAAGGGATGTGGAAAGCGATCATGTCTCATCGGGGATGCAGGCCGTGA CTCAGCCAGCAGATGGGAGGAAAGTGGAGAGATCACCTCTACAGGAGGAAGCCAAGAGGT TCTGGCATCGGTTCATGTTCAGAAAGGGCCCGGCGTTCCAGGGAGTCAT [CCTGCCCATC AAAAGCCACGAAGTACACTGGGAGACCTGCAGGACTGTGCCCTTCAACCAG] ACCATTGC CCATGAAGACTGTCAAAAAGTCGTTGTCCAGAACAACCTTTGCTTTGGCAAATGCAGTTC CATTCGTTTTCCCGGAGAAGGGGCAGATGCCCACAGCTTCTGCTCCCACTGCTCGCCCAC CAAATTCACCACCGTGCACTTGATGCTGAACTGCACCAGCCCAACCCCCGTGGTCAAGAT GGTGATGCAAGTAGAAGAGTGTCAGTGCATGGTGAAGACGGAACGTGGAGAGGAGCGCCT ATGAATTACCTCAACAGAAAGCAAAACCTCAACAGAATAAGTGAGGGTTATTCAATCTGG TCACACACACACACACACACACACACACACATGTTTGTGTTTAGACAGGGTCTTAT GTATTCTCAGCTGGCCTCAAACTCACAATGTGGCTGGGGATGATTTTAAACTCCTGATCC AATTCCTGAGTGCTGGGATTACAGACATGCTCCATAANACATAGCTCCCAGAAGGATTTT TAAAAGAGATTTTGCATGTTTCAAAGTTGCCTTTGAGACTCAGAAATATTTTGATNTATT TTTTCCCGGAATATGAGGAAAATACATGAACAGTATTAGAGTCACTTGAGGAAGTTACTA GGAAACGCCATAAGTCTCCAAGTACATTGTGAGTCATTTTGAAGGACAATCGTGTATATA GACGAAATCTTCTACTCGTATGCTTTTGAATCTTCTAGCAAGTTAGGTTTCTATGTTTGG GCTTCTTCCTATTGTCTAAGAGTATGTGTGACAAATTCAACCTGACAAATACCTCAATGG CAAATTCTGACCCTG

Gene Sequence Structure *

241 bp

Sequence Deleted

528 bp

Size of full-length cDNA: 1752 bp



Targeting Vector* (genomic sequence)

Construct Number: 269

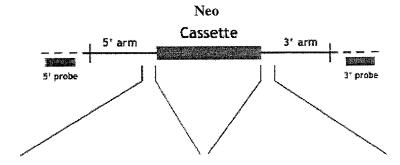
Arm Length: 5': 2 kb 3': 1.7 kb

Targeting Vector
- - - Endogenous Locus

* Not drawn to scale

Hone Shire mad

in i



5'>TCCATCTGTGAATCTAACCTC
AGTCTCTGGGAATCAGGAAGCATG
CATCTCCTCTTAGTTCAGCTGCTT
GTTCTCTTGCCTCTTGGGGAAGGCA
GACCTATGTGTGGATGGCTGCCAG
AGTCAGGGCTCTTTATCCTTTCCT
CTCCCAGAAAGGGGTCGCAGAGAT
CTCCACGTGGCCAACCACGAGGAG
GCAGAAGACAA<3'

(SEQ ID NO: 16)

3

5'>CCTGCCCATCAAAAGCCACGA AGTACACTGGGAGACCTGCAGGAC TGTGCCCTTCAACCAGGTATGCAT TCTAGAGGGTAAACCACCAGTTTG CCAGACAGGGAGGACAGCTGGACA GCTAGGACAAACGGCAAAATAGAA AGAGTCTGGCGAGAGCTCGGGCCT TGTCTAGTTCCAGATTCAGTCCTT TGGGTATTCAT<3'

(SEQ ID NO: 14)

4

FIGURE 2B

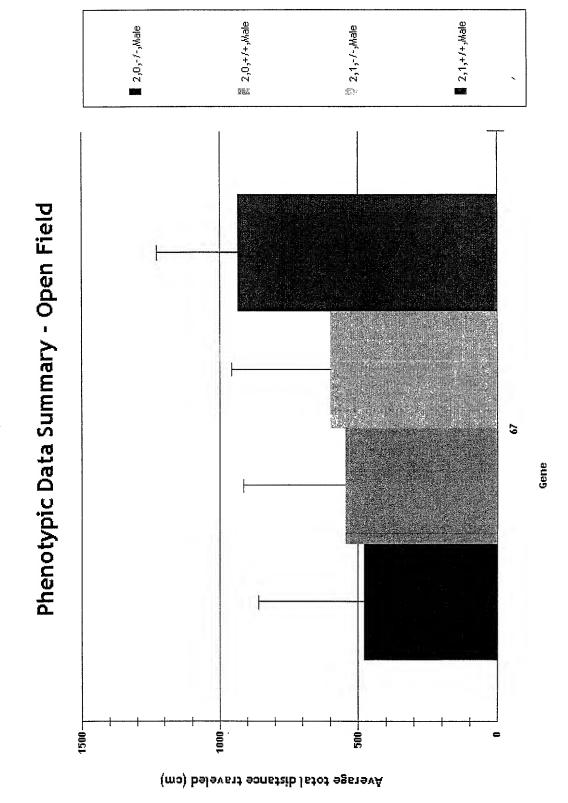


FIGURE 3

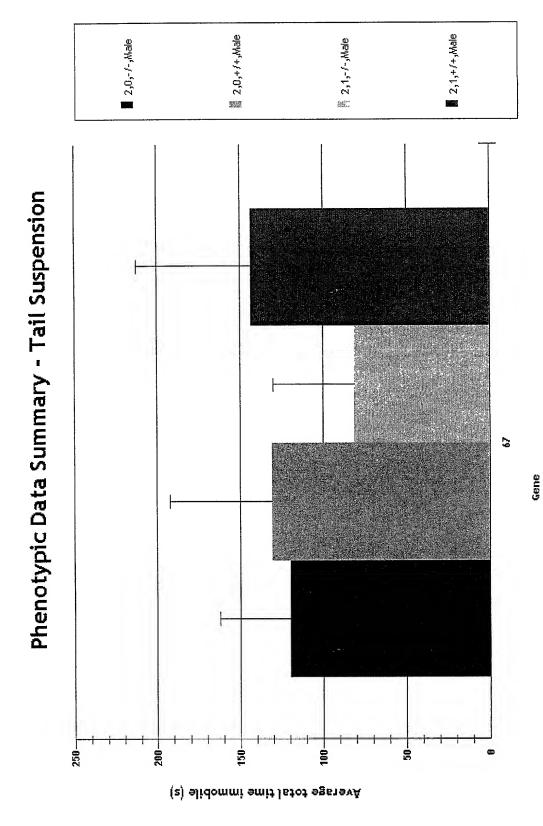


FIGURE 4